



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,093	09/26/2000	Craig R. Shambaugh	00EC018/77779	3663
24628	7590	04/28/2005	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			ALBERTALLI, BRIAN LOUIS	
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/670,093

Applicant(s)

SHAMBAUGH ET AL.

Examiner

Brian L Albertalli

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/18/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 10, 2005 has been entered.

Claims 1, 11, and 21 are currently amended.

### ***Response to Arguments***

Applicant's arguments (see page 8, Claim rejections section, 3<sup>rd</sup> paragraph), filed March 10, 2005, with respect to the rejection(s) of claim(s) 1, 11, and 21 under 35 U.S.C. 102(e) as being anticipated by Farrell (U.S. Patent 6,721,416) have been fully considered and are persuasive. The examiner contends that Farrell does not teach the script that is presented to the user is *associated with a predetermined storyline*. Accordingly, the rejection under 35 U.S.C. 102(e) as being anticipated by Farrell is withdrawn. However, upon further consideration, a new grounds of rejection are made under 35 U.S.C. 103(a) as being unpatentable over Farrell, in view of Kneipp (U.S. Patent 6,102,970).

Claim 26 was rejected in the previous office action under 35 U.S.C. 102(e) as being anticipated by Farrell. Claim 26 has not been amended, and further, was not specifically addressed in the applicant's arguments. Therefore, the rejection of claim 26 under 35 U.S.C. 102(e) as being anticipated by Farrell is upheld.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Farrell (U.S. Patent 6,721, 416).

Farrell discloses a method and apparatus that presents script to a telemarketer (agent). The method and apparatus recognizes the content of the response of a customer by instantiating a voice application (62) to monitor the voice interaction (column 5, lines 20-21). Key words are detected by the voice application (62) by searching the text for occurrences of words in the word table (64) (column 5, lines 38-40). The detected keywords are evaluated in context to determine the information content by the voice processing software (44). The voice processing software (44)

Art Unit: 2655

includes a natural language understanding server (column 3, line 67), which inherently determines the context of keywords to determine information content (column 3, line 67). The voice application (62) selects text from the word table (64) that most closely matches the words or phrases spoken (column 5, lines 38-40). Once a phrase spoken by the customer is identified, the voice application (62) presents a script corresponding to the customer response to the telemarketer (agent) (column 6, lines 7-10).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8-12, 18-21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell, in view of Kneipp (U.S. Patent 6,102,970).

In regard to claims 1 and 11, Farrell discloses a method and apparatus that presents script to a telemarketer (agent), where a plurality of auxiliary scripts (Fig. 2, plurality of records in word table 64, column 4, lines 41-44) are concatenated (Fig. 3, the dialog between the agent and caller is a concatenation of elements of the plurality of records of word table 64, column 4, line 66 to column 5, line 8). The method and apparatus recognizes the content of the response of a customer by instantiating a voice application (62) to monitor the threaded conversation (column 5, lines 20-21). Key words are detected by the voice application (62) by searching the text for occurrences of words in the word table (64) (column 5, lines 38-40). The detected keywords are

evaluated in context to determine the information content by the voice processing software (44). The voice processing software (44) includes a natural language understanding server (column 3, line 67), which inherently determines the context of keywords to determine information content (column 3, line 67). The voice application (62) selects text from the word table (64) that most closely matches the words or phrases spoken (column 5, lines 38-40). Once a phrase spoken by the customer is identified, the voice application (62) presents a script corresponding to the customer response to the telemarketer (agent) comprised of the plurality of scripts (plurality of records in word table 64, column 4, lines 41-44 and column 6, lines 7-10).

Further, Farrell discloses that the dialog between the agent and caller starts with an agent making an outbound call (column 5, lines 11-12). An agent placing an outbound call to a caller would necessarily have a purpose for placing the outgoing call.

Farrell does not disclose that the script presented to the telemarketer (agent) is associated with a predetermined storyline.

Kneipp discloses a method and apparatus for presenting a script for a telemarketer to follow that follows a predetermined storyline (a script initially entered by a supervisor is presented to an agent to communicate to a caller, column 3, lines 41-45 and column 4, lines 48-64). The predetermined scripts presented to the telemarketer (agent) are designed to elicit information from the called party that the agent will use to achieve the purpose of the telephone contact (column 5, lines 31-38).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Farrell to include scripts that were associated with a predetermined

storyline in the plurality of records in word table 64, in order to assist the agent in eliciting information from the called party that would achieve the purpose of the telephone contact by the agent, as taught by Kneipp (column 5, lines 31-38).

In regard to claim 2 and 12, Farrell discloses that the telemarketer's (agent's) word content is recognized (column 5, lines 32-37).

In regard to claims 8 and 18, Farrell discloses that a negative response (confrontational word) from the customer is recognized (column 6, lines 7-10).

In regard to claims 9, 19, and 25, Farrell and Kneipp do not expressly disclose recognizing obscenities in the response of the customer. However, Farrell does recognize confrontational words and phrases as well as polite and non-polite words and phrases (column 6, lines 35-38). Obscenities could be considered both confrontational and non-polite, so adapting Farrell to recognize obscenities would provide another means of determining whether words and phrases were confrontational or non-polite.

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Farrell and Kneipp to recognize obscenities in order to provide another means of determining whether words and phrases were confrontational or non-polite.

In regard to claims 10 and 20, Farrell and Kneipp do not disclose a means of terminating the conversation after a negative response has been recognized. It would

be an obvious matter of design choice to further modify the combination of Farrell and Kneipp so a call was terminated once a negative response was recognized. If a customer is confrontational to the point of using obscenities, there is generally no need to continue the conversation. It would have been obvious to one of ordinary skill in the art at the time of invention to terminate the conversation because terminating the conversation would allow the telemarketer (agent) to continue with another customer.

In regard to claim 21, Farrell discloses an apparatus that presents script to a telemarketer (agent) where a plurality of auxiliary scripts (Fig. 2, plurality of records in word table 64, column 4, lines 41-44) are concatenated (Fig. 3, the dialog between the agent and caller is a concatenation of elements of the plurality of records of word table 64, column 4, line 66 to column 5, line 8). The apparatus uses speech recognition software adapted to recognize word content of a customer (automatic speech recognition server 54 is based on IBM ViaVoice (column 4, lines 18-20). The parsing processor, information content processor and information comparator are all based on IBM's Voice Response for Windows (column 3, lines 45-59), which is adapted for use in the apparatus. Workstations (14) include a script display (VDU) that presents script to the telemarketer (agent) corresponding to the customer response (column 6, lines 7-10).

Further, Farrell discloses that the dialog between the agent and caller starts with an agent making an outbound call (column 5, lines 11-12). An agent placing an outbound call to a caller would necessarily have a purpose for placing the outgoing call.



Farrell does not disclose that the script presented to the telemarketer (agent) is associated with a predetermined storyline.

Kneipp discloses a method and apparatus for presenting a script for a telemarketer to follow that follows a predetermined storyline (a script initially entered by a supervisor is presented to an agent to communicate to a caller, column 3, lines 41-45 and column 4, lines 48-64). The predetermined scripts presented to the telemarketer (agent) are designed to elicit information from the called party that the agent will use to achieve the purpose of the telephone contact (column 5, lines 31-38).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Farrell to include scripts that were associated with a predetermined storyline in the plurality of records in word table 64, in order to assist the agent in eliciting information from the called party that would achieve the purpose of the telephone contact by the agent, as taught by Kneipp (column 5, lines 31-38).

Claims 3-5, 13-15, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell, in view of Kneipp, and further in view of Walker et al. (U.S. Patent 6,567,787).

In regard to claims 3, 13, and 22, the combination of Farrell and Kneipp, as applied to claims 1, 11, and 21, above, discloses all the features of the instant claimed invention, except detecting deviations between the recognized word content of the telemarketer and the presented script.

Walker et al. discloses a system of detecting deviations between the recognized word content of a telemarketer and the presented script (column 16, lines 29-33). The system generates a script (prompt) to be spoken (Fig. 8A, 808) and then recognizes the spoken response of the telemarketer (812) (column 8, lines 63-68, and column 9, lines 1-15). The system then checks if the telemarketers word content deviates from (does not correspond to) the given script (prompt) (814) (column 9, lines 16-18). Modifying Farrell to check if the telemarketers recognized word content deviates from the presented script as taught by Walker et al. would allow further action to be taken, such as preventing touch screen controllers from appearing, if the telemarketer deviated from the presented script, as taught by Walker et al. (column 9, lines 36-39 and column 16, ins 29-33).

Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Farrell and Kneipp to check if the telemarketers recognized word content deviates from the presented script, in order to take a further action if the recognized word content deviated from the presented script.

In regard to claims 4 and 14, the combination of Farrell and Kneipp does not disclose detecting deviations between the recognized word content of the telemarketer and the presented script and measuring an objective performance level of the telemarketer and associating the measured performance level with the deviation.

Walker et al. discloses a system of detecting deviations between the recognized word content of a telemarketer and the presented script that further includes an

Art Unit: 2655

objective measure of the telemarketer. Walker et al. discloses a table (300) which includes a measure of the number of transactions in which the telemarketer (operator) participated (326), the number of transactions in which the verbal message was spoken properly by the telemarketer (operator) (328), and the of percentage times the message was spoken properly (330) (column 5, lines 46-62). Modifying Farrell to include a means of measuring an objective performance level as taught by Walker et al. would allow the telemarketers performance to be tracked and incentives such as bonuses could be offered based on that telemarketer's performance as taught by Walker et al. (column 6, lines 24-28).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Farrell and Kneipp to include a means of measuring an objective performance level as taught by Walker et al. in order to allow the telemarketers performance to be tracked so as to award incentives.

In regard to claims 5 and 15, Farrell discloses monitoring the voice interaction between a telemarketer (agent) and a customer and checking to see if the dialogue of the telemarketer (agent) has caused the performance level (confrontation value) to exceed a threshold and if so, changing the script presented to the telemarketer (column 6, lines 1-5).

The combination of Farrell and Kneipp does not disclose detecting deviations between the recognized word content of the telemarketer and the presented script and measuring an objective performance level of the telemarketer, associating the

measured performance level with the deviation, and changing the script when the performance level exceeds a threshold level.

Walker et al. discloses a system of detecting deviations between the recognized word content of the telemarketer and the presented script and calculating a performance measurement based on deviations from the script (column 5, lines 46-62). Using the objective performance measurement as taught by Walker et al. as the basis for the threshold level used to change the script presented to the telemarketer as taught by Farrell would allow the scripts to be adapted to the current user so that simpler scripts could be provided to telemarketers (operators) less adept at providing complex verbal messages, as taught by Walker et al. (column 6, lines 11-23).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the objective performance measurements as taught by Walker et al. as the basis for the threshold level used to change the script presented to the telemarketer as taught by Farrell in order to adapt the scripts to the current user so that simpler scripts could be provided to telemarketers (operators) less adept at providing complex verbal messages as taught by Walker et al. (column 6, lines 11-23).

1. Claims 6-7, 16-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell, in view of Kneipp, and further in view of Knight (U.S. Patent 6,313,833).

The combination of Farrell and Kneipp discloses all features of the instant claimed invention except subjectively evaluating a response of the customer by the

Art Unit: 2655

telemarketer, using that subjective evaluation to resolve ambiguity, and a cursor and receptiveness chart used by the telemarketer to subjectively evaluate the customer.

Knight discloses an application for use by a telemarketer that measures allows the telemarketer (user) to subjectively evaluate the response of a customer (column 12, lines 17-24).

The application includes a feedback window (260) that allows the telemarketer (user) to visually display data input into the data window (210) thereby resolving any ambiguity column 11, lines 48-55).

Additionally, the application allows the telemarketer (user) to move a cursor (object or data parameter) onto a receptiveness chart (canvas 215) allowing the telemarketer (user) to subjectively evaluate a customer (column 7, lines 39-58).

Further modifying the combination of Farrell and Kneipp to include a cursor and receptiveness chart to subjectively evaluate the telemarketer (user) would provide meaningful analyses of subjective data that could be used to present potential options to the telemarketer, as taught by Knight (column 3, lines 54-56 and column 12, lines 21-23).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Farrell and Kneipp to include a receptiveness chart to subjectively evaluate a customer's response in order to provide meaningful analyses of subjective data that could be used to present potential options to the telemarketer, as taught by Knight

**Conclusion**


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anisimov et al. (*Formal Model, Language and Tools for Design Agent's Scenarios in Call Center Systems*) disclose a formal model for developing scripts for telemarketers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (571) 272-7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 4/26/05

  
DAVID L. OMETZ  
PRIMARY EXAMINER